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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/577,554 | 08/09/2007 | Francois Moutel | 1032326-000393 | 2258 |
| 21839 7590 04/28/2011 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404 | | | EXAMINER PHAN, THIEM D | |
| | | | ART UNIT 3729 | PAPER NUMBER |
| | | | NOTIFICATION DATE 04/28/2011 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/577,554 | Applicant(s) MOUTEL ET AL. | |
| | Examiner THIEM PHAN | Art Unit 3729 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 and 15-26 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 2-9 and 15 is/are allowed.
- 6) ☒ Claim(s) 16-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 04/15/11 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2- 3, 5-9 and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yen (US 6,744,634) in view of Tetaka et al (US 6,159,770).

Regarding claims 16 and 26, Yen teaches a process of making low height USB interface, comprising:

- forming a printed circuit package (Fig. 11, 202) carrying microcircuits defining USB-format contact pads (111) and carrying an electronic component (202A) connected to the pads, and

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- in a single operation, increasing the thickness of a cut-out portion of printed circuit package (202) through sandwiching between two casings (113 & 114) while having the microcircuit at least in the area (Fig. 8, 300A) of the contact pads, so as to have a total thickness combined with layer (113) that conforms to the USB Standard (Col. 3, lines 56-60); which reads on applicants' claimed invention, except for having the printed circuit package cut out from a tape having a plurality of microcircuit packages.

Tetaka et al teach a method of fabricating semiconductor devices with the printed circuit having microcircuit of semiconductor devices, including the cutting out (Fig. 179A, 486) from a tape (Fig. 173A, items 412 & 432) having a plurality of microcircuit packages (412), a portion of the tape (473) including one of the microcircuit packages (412), in order to facilitate the handling and the automated assembling of theses microcircuit packages to a system (Col. 25, lines 20-24).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Yen by applying the microcircuits mounted on the tape, as taught by Yen and not its general structure, in order to facilitate the handling and the automated assembling of theses microcircuit packages to a system such as the USB Interface key.

Regarding claim 17, Yen teaches the disposing of a casing comprising at least one bottom half-shell (Fig. 6, 113) at least under the contact pads.

Regarding claim 18, Yen teaches the interfitting of the bottom half-shell (Fig. 6, 113) with a top half-shell (112) covering a zone of the microcircuit that lies outside the contact pads (111).

Regarding claim 20, Yen teaches the forming of an overmolded portion (Fig. 11, 114 &

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113A) over the microcircuit (202).

Regarding claim 21, Yen teaches the fastening of the microcircuit (Fig. 11, 202) to the bottom shell (113).

Regarding claim 22, Tetaka et al teach the insulative adhesive (Fig. 46, 115) to fix a chip (111) and it would be obvious to apply this adhesive to fix the microcircuit to the bottom shell while insulating it.

Regarding claim 23, Yen teaches that the electronic component (Fig. 11, 202A) is disposed at a location (113A) offset from a location of the contact pads (111).

Regarding claim 24, Tetaka et al teach that the electronic component (Fig. 116, 311) is disposed on the same top face of the microcircuit as the contact pads (315) and it would be obvious to apply this structure to Yen to accommodate further electronic component to the circuit.

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yen in view of Tetaka et al and further view of Lin et al (US 6,676,419).

Regarding claim 19, Yen in view of Tetaka et al teach a process of making USB interface with a microcircuit; which reads on applicants' claimed invention, except for inserting the microcircuit into a shell having an access (213) on a rear edge.

Lin et al teach a process of fabricating a portable storing device with USB interface by inserting the microcircuit (Fig. 3, 24) into a shell (21 & 22) having an access on a rear edge in

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order to have a stabilized structure of forward and backward position of the contact terminal (Col. 1, lines 42-47).

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Yen in view of Tetaka et al by applying the design of forward or backward movement of contact terminal, as taught by Lin et al and not its general structure, in order to avoid the cost of the top switch (Fig. 8, 202C) and the unreliable contact cover (Fig. 14, 301) which tends to be lost and to permanently expose the contacts (Fig. 12, 111) and to have a stabilized structure of forward and backward position of the contact embedded in the circuit board (Fig. 12, 202).

Allowable Subject Matter

5. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowed Claims

6. Claims 2-9 and 15 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 16-26 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M, 8AM - 2PM, and W & Th, 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phan Thiem/
Primary Examiner, Art Unit 3729

April 25, 2011